5



A baseband direct sequence spread spectrum CDMA transceiver. The data signal is modulated with a Hadamard function having pseudorandomly scrambled rows. This data signal is then broadcast baseband, absent a carrier, by a relatively short, mismatched antenna. The baseband signal is spread out across the DC to 30 MHz spectrum. A low noise, high gainbandwidth product amplifier boosts the baseband RF signal. A correlator/servo system is used to actively cancel the transmit signal from the received signal.

10 Consequently, the same antenna can be used to receive incoming baseband RF signals as well as transmit baseband RF signals, thereby providing full duplex operation.